

# PROGRAMME SCHEME & SYLLABI School of Management

Multidisciplinary Minor [MDM]
Entrepreneurship and Venture Development
2025-26

# MDM in Entrepreneurship and Venture Development

#### The Overview:

The Minor in Entrepreneurship and Venture Development is designed for undergraduate engineering students who aspire to become entrepreneurs and start their new ventures. This program equips students with the knowledge, skills, and mindset required to identify opportunities, develop innovative solutions, build scalable business models, and launch successful ventures.

Through hands-on learning, real-world case studies, and mentorship from industry experts, students will gain practical experience in product development, business strategy, financial planning, and go-to-market execution. The program fosters a problem-solving mindset, leadership skills, and a strong understanding of a business to help students turn their ideas into viable businesses.

# **Program Objectives:**

By the end of this minor, students will be able to:

- 1. Develop an Entrepreneurial Mindset Cultivate creativity, resilience, and problem-solving skills essential for launching and sustaining a startup.
- 2. Identify & Validate Business Opportunities Use customer discovery, market research, and user feedback to assess the viability of an idea.
- 3. Innovate & Build Scalable Solutions Apply design thinking, prototyping, and rapid experimentation to develop products or services.
- 4. Create a Sustainable Business Model Utilize frameworks like the Business Model Canvas and Lean Startup Methodology to design profitable and scalable businesses.
- 5. Understand Startup Finance & Investment Strategies Learn the fundamentals of financial planning, funding sources, valuation, and investor pitching.
- 6. Develop Go-to-Market & Growth Strategies Implement branding, digital marketing, customer acquisition, and sales strategies for startup success.

#### Who Should Enrol?

This minor is ideal for BTech students who:

- Are passionate about innovation, startups, and technology development
- Want to develop entrepreneurial & leadership skills alongside their technical expertise
- Are interested in solving real-world problems through engineering-driven businesses
- Aspire to become startup founders, product managers, or business leaders

# Minors Scheme and Curriculum Design

No	Sem	Course Type	Course Code	Course Title	Hrs/ Week		Cre dits	Maximum Marks		arks	ESE Durati on in Hours
					L	P		Continu ous Evaluati on	End Sem	Total	
1	III	Minor	24SM0 3TH03 01	Foundations of Entrepreneurship and Venture Development	3	ı	3	50	50	100	3 Hrs
2	IV	Minor	24SM0 3TH04 01	Innovation and Product Development	3	-	3	50	50	100	3 Hrs
3	V	Minor	24SM0 3TH05 01	Startup Finance & Business Strategy	3	-	3	50	50	100	3 Hrs
4	VI	Minor	24SM0 3PR060 1	Startup Sandbox	_	6	3	100	-	100	NA

# BTech Semester III | Minor in Entrepreneurship and Venture Development

#### **SYLLABUS**

Course Code: 24SM03TH0301

Course: Foundations of Entrepreneurship and Venture Development

L: 3 Hrs. P: 0 Hrs. per week Credits: 3

## **Course Outcomes:**

By the end of this course, students will be able to:

CO1: Understand entrepreneurial mindset and leadership skills.

CO2: Understand different types of innovation and entrepreneurship.

CO3: Identify real-world problems and discover customer needs.

CO4: Build a Business Model Canvas for a startup idea.

CO5: Design a compelling value proposition for their venture.

**Unit 1: Entrepreneurial Mindset:** Understanding Entrepreneurship & Its Importance, Characteristics of Successful Entrepreneurs, Growth Mindset vs. Fixed Mindset, Risk-Taking, Resilience & Adaptability, Entrepreneurial Leadership & Decision-Making, Case Studies of Entrepreneurs

Activity: Self-assessment: Do you have an entrepreneurial mindset?

**Unit 2: Problem Identification and Customer Discovery:** Identifying Market Gaps & Real-World Problems, Pain Points vs. Needs vs. Desires, Techniques for Validating Business Ideas, Empathy Mapping & Customer Personas

**Activity:** Develop a Customer Persona for a chosen business idea

**Unit 3 and 4: Business Model Canvas:** Understanding the 9 Building Blocks of the Business Model Canvas, Key Partners, Key Activities, Key Resources, Revenue Streams & Cost Structure, Real-World Application of Business Model Canvas, Iterating & Validating Business Models

Activity: Work in teams to create a Business Model Canvas for a startup idea

**Module 5: Value Proposition Design:** What Makes a Strong Value Proposition? Understanding Customer Jobs, Pains, and Gains, designing a Unique & Competitive Value Proposition, Aligning Value Proposition with Customer Needs, Testing & Refining Your Value Proposition

Activity: Create a Value Proposition Canvas for a new business idea

#### Recommended Books & Readings:

- 1. The Startup Owner's Manual by Steve Blank and Bob Dorf, Willey Publications
- 2. New Venture Creation: Kathleen R Allen, Cengage Publications
- 3. New Venture Creation: Jeffry A. Timmons, Stephen Spinelli, Mcgraw Hills Publications
- 4. Business Environment: Justin Paul, McGraw Hill Publications

# BTech Semester IV | Minor in Entrepreneurship and Venture Development

#### **SYLLABUS**

Course Code: 24SM03TH0401

Course: Innovation and Product Development

L: 3 Hrs. P: 0 Hrs. per week Credits: 3

#### **Course Outcomes:**

By the end of this course, students will be able to:

CO1: Understand the principles of innovation and how they drive product success.

CO2: Apply user research and design thinking to product development.

CO3: Build and test prototypes to validate ideas quickly.

CO4: Develop a structured approach to New Product Development (NPD).

CO5: Achieve Product-Market Fit (PMF) through market analysis and iteration.

**Unit 1: Fundamentals of Innovation & Product Development:** What is Innovation? Disruptive vs. Incremental Innovation, Case Studies: Successful vs. Failed Product Innovations, The Role of Creativity in Product Development, Technology Trends & Emerging Markets, The Innovator's Dilemma: Why companies fail to innovate.

**Activity:** Brainstorm an innovative product idea based on a real-world problem

**Unit 2: Understanding User Needs:** User-Centric Approach to Innovation, Conducting User Research & Customer Interviews, Identifying Pain Points, Needs, & Desires, Empathy Mapping & Customer Personas, Analysing Market Trends & Competitive Landscape

**Activity:** Conduct a Customer Discovery exercise for a business idea

**Unit 3: Prototyping & Iterative Development:** Concept to Prototype: Low vs. High-Fidelity Prototypes, building a Minimum Viable Product (MVP), User Testing & Feedback Loops, Rapid Experimentation & A/B Testing, The Lean Startup Approach: Build-Measure-Learn Cycle,

**Activity:** Develop a paper prototype or wireframe for a product idea and conduct a usability test

**Unit 4: Bringing a Product to Market:** Product Roadmap & Feature Prioritisation, Manufacturing & Production Considerations, Pricing Strategies & Business Models, Marketing & Positioning a New Product, Funding & Investment for Product Development,

Activity: Develop a Go-To-Market Strategy for a product idea

**Unit 5: Scaling & Achieving Product-Market Fit:** What is Product-Market Fit (PMF)? Metrics to Measure PMF, Retention, NPS, Churn Rate, Pivoting Based on Market Feedback, Growth Hacking & Scaling Strategies, Sustaining Innovation & Staying Competitive

**Activity:** Conduct a PMF Assessment for a chosen startup or business

# Recommended Books & Readings:

- 1. Innovator's Playbook: How to Create Great Products, Services and Experiences that Your Customers Will Love: Nathan Baird, Wiley Publications

  2. New Products Management: Merle Crawford, Anthony Di Benedetto, McGraw-
- Hill Publications
- 3. An Introduction to Critical Thinking and Creativity: Think More, Think Better: J. Y. F. Lau, Wiley Publications

## BTech Semester V | Minor in Entrepreneurship and Venture Development

#### **SYLLABUS**

Course Code: 24SM03TH0501

Course: Startup Finance & Business Strategy

L: 3 Hrs. P: 0 Hrs. per week Credits: 3

#### **Course Outcomes:**

By the end of this course, students will be able to:

CO1: Craft startup funding

CO2: Build a Financial Model for a Startup CO3: Craft branding & positioning strategy

CO4: Craft a digital marketing strategy & ad campaign for a startup

CO5: Develop the right sales model

**Unit 1: Introduction to Startup Finance & Business Strategy:** Importance of Financial Planning in Startups, Understanding Financial Statements: Income Statement, Balance Sheet, Cash Flow, Key Financial Metrics & Ratios for Startups, Strategic Thinking & Decision-Making for Entrepreneurs

Case Study: How financial planning impacts startup survival

Activity: Analyse the financial health of a real startup using financial statements

**Unit 2: Budgeting, Forecasting, and Financial Modelling:** Creating a Startup Budget & Financial Plan, Revenue Projections & Cost Estimation, Break-even Analysis & Unit Economics, Building a Financial Model for a Startup, Sensitivity Analysis: Testing Different Scenarios

# **Activity:**

Develop a basic financial model for a startup idea

**Unit 3: Branding & Positioning Strategy:** What is Branding & Why Does it Matter? Crafting a Unique Value Proposition (UVP), Building a Brand Identity: Name, Logo, Colors, Messaging, Emotional Branding & Customer Loyalty Case Study: How top brands position themselves for success

**Activity:** Develop a brand identity & positioning statement for a startup

**Unit 4: Digital Marketing & Customer Acquisition:** Key Digital Marketing Channels: SEO, PPC, Social Media, Email, Content Marketing & Storytelling for Brand Awareness, Performance Marketing: Facebook, Instagram, LinkedIn, Google Ads, Influencer & Affiliate Marketing Strategies, Growth Hacking Techniques for Rapid Traction

Activity: Create a digital marketing strategy & ad campaign for a startup

**Unit 5: Sales & Distribution Channels:** Choosing the Right Sales Model: B2B, B2C, D2C, Marketplace, Direct vs. Indirect Sales Strategies, Online & Offline Sales Channels Customer Relationship Management (CRM) & Sales Funnels, Partnerships & Strategic Alliances for Market Penetration

**Activity:** Design a sales & distribution strategy for a startup

# Recommended Books & Readings:

- 1. Financial Management, Khan & Jain, Tata McGraw Hill
- 2. Project Planning Analysis, Selection, Implementation and Review, Prasanna Chandra, Tata McGraw-Hill
- 3. Management Accounting, M.N. Arora, Vikas Publications
- 4. Financial, Cost and Management Accounting, Dr. P. Periasamy, Himalaya Publishing House.
- 5. Financial Management, R P Rustagi, Taxman Publication
- 6. Strategic Brand Management by Kevin Keller, Pearson Publication
- 7. Digital Marketing by Seema Gupta, McGraw Hill Publication
- 8. This is Marketing by Seth Godin, Penguin Publications

# BTech Semester VII | Minor in Entrepreneurship and Venture Development

#### **SYLLABUS**

Credits: 3

Course Code: 24SM03PR0701 Course: Startup Sandbox L: 0 Hrs. P: 6 Hrs. per week

This semester shall comprise of Action Learning Segment which will focus on the use of all tools and techniques learned during this minor in venture formation, operation and its management.

The ultimate output of this course is a functional startup with a validated product market fit and a sound business model.

The students will be evaluated based on their progress toward achieving the following milestones:

- Milestone 1: Finalising the business idea and conducting initial market research to assess the potential demand and identify the target customer base.
- Milestone 2: Customer validation, gathering feedback, and refining the business idea to ensure it meets the needs of the market. (PoC)
- Milestone 3: Developing a comprehensive business model, including pricing, revenue streams, and go-to-market strategy along with MVP.
- Milestone 4: Presenting a final business pitch to a panel of evaluators, showcasing the refined business idea, validated model, and readiness for scaling.